

# What Works Clearinghouse



Dropout Prevention

July 16, 2007

## Talent Development High Schools

### Program description

*Talent Development High Schools* is a school reform model for restructuring large high schools with persistent attendance and discipline problems, poor student achievement, and high drop-out rates. The model includes both structural and curriculum reforms. It calls for schools to reorganize into small “learning

communities”—including ninth-grade academies for first-year students and career academies for students in upper grades—to reduce student isolation and anonymity. It also emphasizes high academic standards and provides all students with a college-preparatory academic sequence.

### Research

One study of *Talent Development High Schools* met the What Works Clearinghouse (WWC) evidence standards with reservations. The quasi-experimental research design included multiple cohorts of entering ninth-grade students from 11 Philadelphia high schools—five *Talent Development High Schools* and six

matched comparison schools.<sup>1</sup> The WWC considers the extent of evidence for *Talent Development High Schools* to be small for progressing in school. No studies that met the WWC evidence standards with or without reservations addressed staying in school or completing school.

### Effectiveness

*Talent Development High Schools* was found to have potentially positive effects on progressing in school.

	<i>Staying in school</i>	<i>Progressing in school</i>	<i>Completing school</i>
<b>Rating of effectiveness</b>	na	Potentially positive effects	na
<b>Improvement index<sup>2</sup></b>	na	Average: +7 percentile points Range: +6 to +8 percentile points	na

na = not applicable

1. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.
2. These numbers show the average improvement index for all findings across the study.

## **Additional program information**

### **Developer and contact**

*Talent Development High Schools* was developed by The Center for Research on the Education of Students Placed At Risk (CRESPAR), housed at Johns Hopkins University's Center for the Social Organization of Schools (CSOS). Information on the model's history and current resources for program implementation are available from CSOS at [www.csos.jhu.edu/tdhs](http://www.csos.jhu.edu/tdhs).

### **Scope of use**

*Talent Development High Schools* was initiated in 1994 through a partnership between CRESPAR and Patterson High School in Baltimore, Maryland. CSOS reports that, as of March 2007, 43 districts in 15 states were operating schools using the *Talent Development High Schools* model in full or in part.

### **Description of intervention**

*Talent Development High Schools* is a school reform model for restructuring large high schools facing serious problems with attendance, discipline, student achievement, and dropping out. To address these problems and to prepare all students for post-secondary education and employment, the model introduces both structural and curriculum reforms. To reduce student anonymity and isolation, *Talent Development High Schools* reorganizes high schools into smaller learning communities, including a ninth-grade academy, career academies for the upper grades, and an after-hours school for students with serious discipline problems. The ninth-grade academy is a self-contained school-within-a-school for first-year students, taught by a team of four to five teachers. Career academies for the upper grades, self-contained groups of about 300 students organized around career themes, have their own teaching staff and management. The "Twilight School," an after-hours program for students with serious attendance or discipline problems, provides small classes and extensive support services.

Curriculum reforms, complementing the structural changes, address low student expectations and poor academic preparation, which the model views as root causes of dropping out. To increase expectations for student achievement, *Talent Development High Schools* provides a college-preparatory academic sequence for all students. The program provides "double dose" mathematics and English courses for ninth and tenth graders. The first semester of "double dose" courses is remedial English or math; the second semester is the district-mandated course, a full-credit (and typically year-long) course covered in one semester of daily 90-minute sessions. In addition, as part of the ninth-grade academy, all first-year students complete a one-semester seminar that teaches strategies for meeting the increased academic demands of high school.

To address the challenges of implementing large-scale school reform, *Talent Development High Schools* emphasizes ongoing technical assistance and professional development for staff. Each school is assigned a team of curriculum coaches trained by CSOS to work with school staff to implement the model. In addition, CSOS sponsors annual conferences for *Talent Development High Schools* staff.

### **Cost**

According to the CSOS, the additional cost of operating *Talent Development High Schools* (above and beyond the cost of continuing to operate their traditional high school model) is about \$350 per student per year. This estimate includes the costs of curriculum materials and ongoing technical assistance. CSOS indicates that school districts may have additional expenses if the shift to block scheduling and the implementation of the academy model requires them to hire additional staff. In some cases, school districts may also incur additional costs if they need to renovate their facilities so that the ninth-grade academy and the career academies can be housed in distinct parts of the building.

**Research** The WWC reviewed four studies of the effectiveness of *Talent Development High Schools*. One study (Kemple, Herlihy, & Smith, 2005) used a quasi-experimental research design and met WWC evidence standards with reservations. The other three studies did not meet WWC evidence screens.

#### Met evidence standards with reservations

The Kemple, Herlihy, & Smith (2005) study of *Talent Development High Schools* used a quasi-experimental research design known as comparative interrupted time series analysis. The study focused on five Philadelphia high schools that began implementing *Talent Development High Schools* between 1999 and 2001. These schools were matched to six similar Philadelphia high schools that did not implement the program. The study compared the outcomes of ninth graders who entered *Talent Development High Schools* in the years immediately after the program was implemented with the outcomes of ninth graders

from these schools in the years just before program implementation and the outcomes in the comparison schools. The difference between outcomes before and after implementation in *Talent Development High Schools* and the comparison schools is the estimate of the program's effects.

#### Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or moderate to large (see the [What Works Clearinghouse Extent of Evidence Categorization Scheme](#)). The extent of evidence takes into account the number of studies and total sample size across the studies that met WWC evidence standards with or without reservations.<sup>3</sup>

The WWC considers the extent of evidence for *Talent Development High Schools* to be small for progressing in school. No studies that met WWC evidence standards with or without reservations addressed staying in school or completing school.

## Effectiveness

#### Findings

The WWC review of interventions for dropout prevention addresses student outcomes in three domains: staying in school, progressing in school, and completing school. For Kemple, Herlihy, & Smith (2005), WWC assessed outcomes only in the progressing in school domain.<sup>4</sup>

*Progressing in school.* Kemple, Herlihy, & Smith (2005) found that students using *Talent Development High Schools* earned an average of 9.5 course credits over the first two years of high school, while comparison group students earned 8.6 course

credits. In addition, *Talent Development High Schools* students were more likely to be promoted to tenth grade than comparison students (68% vs. 60%).<sup>5</sup> Both differences were statistically significant.

#### Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research

3. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept, external validity, such as students' demographics and types of settings in which studies took place, are not taken into account for the categorization.
4. The study also examined outcomes in the staying in school and completing school domains. However, these analyses did not meet WWC standards. Please see Appendix A1 for details.
5. These comparison group means were not directly reported by Kemple, Herlihy, & Smith (2005) and were obtained by a simple transformation of the results provided in the report. See the [WWC Talent Development High Schools Technical Appendices](#) for more details.

## **Effectiveness (continued)**

### **The WWC found Talent Development High Schools to have potentially positive effects on progressing in school**

design, the statistical significance of the findings,<sup>6</sup> the size of the difference between participants in the intervention and the com-

parison conditions, and the consistency in findings across studies (see the [WWC Intervention Rating Scheme](#)).

#### **Improvement index**

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study and an average improvement index across studies (see [Technical Details of WWC-Conducted Computations](#)). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analyses. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.

The average improvement index for progressing in school is +7 percentile points based on the one study that passed WWC evidence screens, with a range of +6 to +8 percentile points across the findings.

#### **Summary**

The WWC reviewed four studies on *Talent Development High Schools*. One study met WWC standards with reservations; the remaining studies did not meet WWC evidence screens. Based on this one study, the WWC found potentially positive effects on progressing in school. The conclusions presented in this report may change as new research emerges.

## **References**

### **Met WWC evidence standards with reservations**

Kemple, J., Herlihy, C., & Smith, T. (2005). *Making progress toward graduation: Evidence from the Talent Development High School model*. New York: MDRC.

#### **Additional source:**

Kemple, J., & Herlihy, C. (2004). *The Talent Development High School model: Context, components, and initial impacts on ninth-grade students' engagement and performance*. New York: MDRC.

### **Did not meet WWC evidence screens**

Balfanz, R., Legters, N., & Jordan, W. (2004). *Catching up: Impact of the Talent Development ninth grade instructional interventions in reading and mathematics in high-poverty high schools*. Baltimore: Johns Hopkins University, CRESPAR.<sup>7</sup>

McPartland, J., Balfanz, R., Jordan, W., & Legters, N. (1998). Improving climate and achievement in a troubled urban high school through the Talent Development model. *Journal of Education for Students Placed at Risk*, 3(4), 337–361.<sup>8</sup>

6. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate the statistical significance. In the case of Kemple, Herlihy, & Smith (2005), the study authors had corrected for clustering, so no additional corrections were required. The WWC did, however, correct the statistical significance levels for multiple comparisons.
7. The outcome measures are not relevant to this review.
8. Lack of evidence of baseline equivalence: the study, which used a quasi-experimental design, did not establish that the comparison group was equivalent to the intervention group at baseline.

<b>References</b> (continued)	McPartland, J., Legters, N., Jordan, W., & McDill, E. L. (1996). <i>The Talent Development High School: Early evidence of impact on school climate, attendance, and student development</i> (Report No. 2). Baltimore: Johns Hopkins University, CRESPAR. <sup>9</sup>
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**For more information about specific studies and WWC calculations, please see the [WWC Talent Development High Schools Technical Appendices](#).**

9. The study did not use a comparison group to assess relevant WWC outcomes.

# Appendix

## Appendix A1 Study characteristics: Kemple, Herlihy, & Smith, 2005 (quasi-experimental design)

Characteristic	Description
<b>Study citation</b>	Kemple, J. J., Herlihy, C. M., & Smith, T.J. (2005). <i>Making progress toward graduation: Evidence from the Talent Development High School model</i> . New York: MDRC.
<b>Participants</b>	<p>The main analysis sample included first-time ninth-grade students<sup>1</sup> from five high schools that began implementing <i>Talent Development High Schools</i> between 1999 and 2001 and six matched comparison high schools.<sup>2</sup> Between two and four comparison schools were matched to each of the five intervention schools based on the racial/ethnic composition and promotion rates of the schools' ninth-grade students (Kemple &amp; Herlihy, 2004). A comparison school could be matched to multiple <i>Talent Development High Schools</i>. The study compared the outcomes of ninth graders who entered <i>Talent Development High Schools</i> in the three years immediately after the program was implemented with those of ninth graders from these schools in the three years just before program implementation and with the outcome differences over the same time period for the matched comparison schools.<sup>3</sup></p> <p>Many students selected for <i>Talent Development High Schools</i> had low test scores and were overage for their grade. More than three-quarters were African-American and about one in six were Hispanic. Poor attendance was common, with two-thirds missing at least 20% of scheduled school days during their ninth-grade year. In addition, many did not make regular progress toward graduation, with just half promoted to tenth grade at the end of their ninth-grade year. Students in the matched comparison schools were generally similar to <i>Talent Development High Schools</i> students on these characteristics (Kemple &amp; Herlihy, 2004).</p> <p>The study examined three cohorts of students. Cohort 1 included students in the intervention and matched comparison schools who enrolled in the ninth grade during the first year of <i>Talent Development High Schools</i> implementation at the intervention schools. Similarly, Cohort 2 and Cohort 3 included students who were enrolled in the ninth grade during the second and third years of implementation, respectively. Given the fixed period for data collection, later cohorts had shorter follow-up periods. To ensure both an adequate follow-up and an adequate sample size for assessing program effectiveness, the WWC used second-year results based on Cohorts 1 and 2 to rate the effectiveness of <i>Talent Development High Schools</i>. Longer-term results based only on Cohort 1 and shorter-term results based on all three cohorts are reported in Appendix A4.</p>
<b>Setting</b>	The impact study was conducted in 11 nonselective public high schools in Philadelphia.
<b>Intervention</b>	<p>The Philadelphia public school district implemented the <i>Talent Development High Schools</i> model in seven high schools. The district began to roll out the program in 1998, with one or two high schools launching <i>Talent Development High Schools</i> each year over a five-year period. School administrators volunteered their schools as candidates for implementing the new program. To allow for adequate follow-up, the impact study excluded the two Philadelphia high schools that implemented <i>Talent Development High Schools</i> last.</p> <p>All the Philadelphia <i>Talent Development High Schools</i> created ninth-grade academies on a separate floor or wing of the building, which were taught by teams of four to five teachers. Each school introduced block scheduling with 80- to 90-minute class sessions, introducing "double dose" math and English courses for ninth and tenth graders. These double sections of English and math allowed students to both prepare for and take college preparatory classes over the course of one academic year. Six of the seven schools offered "Twilight School" for new or repeating ninth graders with serious attendance or discipline problems.<sup>4</sup></p> <p>The model for students in grades 10 through 12 centered around career academies, in which students were divided into smaller "learning communities" around a broad career interest and the curriculum was organized around a career theme. Many Philadelphia high schools already had career academies before <i>Talent Development High Schools</i> was implemented, including many non-<i>Talent Development</i> schools. The study authors concluded that "(i)t is likely, therefore, that the upper-grade experience of students in <i>Talent Development</i> schools did not greatly differ from that of students in non-<i>Talent Development</i> schools" (Kemple, Herlihy, &amp; Smith, 2005, p. 27).</p> <p>The study authors reported some variation in how the program was implemented across schools (Kemple, Herlihy, &amp; Smith, 2005). In particular, they noted considerable variation across the intervention schools in the amount of technical assistance and support schools received from the intervention developer, as well as the amount of intervention-specific training school staff received.</p>

(continued)

## Appendix A1 Study characteristics: Kemple, Herlihy, & Smith, 2005 (quasi-experimental design) (continued)

Characteristic	Description
<b>Comparison</b>	Matched comparison schools were nonselective Philadelphia high schools that did not implement <i>Talent Development High Schools</i> . The authors compared the intervention group both with students in the comparison schools and with students who attended the intervention schools prior to the implementation of <i>Talent Development High Schools</i> .
<b>Primary outcomes and measurement</b>	<p>Two relevant outcomes are included in this review: total credits earned and enrollment in the tenth grade by the end of the second year of high school (see Appendix A2 for more detailed descriptions of these outcome measures).</p> <p>The study also examined <i>Talent Development High Schools'</i> effects on attendance and student achievement. These outcomes are not included in this report because they do not fall within the three domains (staying in school, progressing in school, and completing school) examined by the WWC's review of dropout prevention interventions. Effects on the percentage of students who exited the school district were also estimated. However, the WWC had concerns about the validity of this measure and did not include it in the review.<sup>5</sup> The study also examined the effects of <i>Talent Development High Schools</i> on graduation on the two earliest implementing schools. Since these results are only available for a small subset of the full research sample, they are not considered for the effectiveness rating and improvement index.</p>
<b>Teacher training</b>	Teachers at <i>Talent Development High Schools</i> were regular teachers employed by the Philadelphia Public Schools. "Curriculum coaches" who had been trained by the intervention developer provided on-site technical assistance with implementing the <i>Talent Development High Schools</i> model. The developer also provided summer training institutes for staff.

1. The authors also examined the effects of *Talent Development High Schools* on students repeating the ninth grade. However, this review focuses only on the effects of the intervention on first-time ninth graders.
2. The sample was restricted to students who attempted at least one course credit during the ninth grade and excluded special education students and English language learners. The authors did not report the number of students in the sample.
3. To take into account the potential influence of changes in the composition of students attending the study schools, the authors used ordinary least squares regression to control for a set of student background characteristics (race, seventh-grade reading and math test scores, and whether the student had repeated a grade) when estimating impacts.
4. Reports from the study do not indicate whether the one school that did not implement the "Twilight School" was among the five schools included in the impact analysis.
5. In particular, the measure did not appear to adequately capture the full extent of dropping out because only about 2% of students were categorized as having dropped out during the first two years of high school.

## **Appendix A2      Outcome measures in the progressing in school domain**

<b>Outcome measure</b>	<b>Description</b>
<b>Total credits earned by end of second year of high school</b>	This measure represents the cumulative number of course credits earned over the first two years of high school. These data were collected from individual students' school records obtained from the district.
<b>Enrolled in tenth grade by end of second year of high school</b>	This measure represents the percentage of students who were enrolled in the tenth grade by the end of the second year of high school. These data were collected from individual students' school records obtained from the district.

## Appendix A3 Summary of study findings included in the rating for the progressing in school domain<sup>1</sup>

Outcome measure	Study sample	Sample size (schools) <sup>2</sup>	Authors' findings from the study		WWC calculations		
			Talent Development High Schools group <sup>3</sup>	Comparison group <sup>4</sup>	Mean difference <sup>5</sup> (Talent Development High Schools – comparison)	Effect size <sup>6</sup>	Statistical significance <sup>7</sup> (at $\alpha = 0.05$ )
<b>Kemple, Herlihy, &amp; Smith, 2005 (quasi-experimental design)<sup>9</sup></b>							
Total credits earned by end of second year	Cohorts 1 and 2	11	9.5	8.6	0.9	0.16	Statistically significant +6
Enrolled in tenth grade by end of second year (%)	Cohorts 1 and 2	11	68	60	8	0.21	Statistically significant +8
<b>Domain average<sup>10</sup> for progressing in school across all studies</b>						0.18	Statistically significant +7

1. This appendix reports follow-up findings considered for the effectiveness rating and the improvement index. Kemple, Herlihy, & Smith (2005) examined *Talent Development High Schools'* effects on three cohorts of entering ninth-grade students. Given the fixed period for data collection, the follow-up period varied by cohort. Cohort 1 had three years of follow-up, while Cohort 2 had two years, and Cohort 3 had only one year. To balance the benefits of assessing program effectiveness using a longer follow-up period with the benefits of assessing effectiveness using results from multiple cohorts of students, the WWC used results for Cohorts 1 and 2 measured at the end of the second year of high school. Follow-up findings from the end of the first year of high school (available for all three cohorts) and the third year of high school (available for Cohort 1 only) are not included in these ratings, but are reported in Appendix A4.
2. Kemple, Herlihy, & Smith (2005) used individual student data, but did not report the number of students in the sample.
3. The WWC calculated the cross-cohort average for each measure as the simple average of the mean outcomes for each cohort included in the measure.
4. Kemple, Herlihy, & Smith (2005) did not report these adjusted comparison group means and instead reported baseline to follow-up changes for both the intervention and comparison groups. The WWC generated the adjusted comparison group means reported here using the following transformation: adjusted comparison group mean = follow-up comparison group mean + (baseline intervention group mean – baseline comparison group). Stated differently, the adjusted comparison group mean equals the follow-up intervention group mean minus the estimated impact because, under the comparative interrupted time-series technique used in Kemple, Herlihy, & Smith (2005), impacts are calculated as follows: impact = (follow-up intervention group mean – baseline intervention group mean) – (follow-up comparison group mean – baseline comparison group mean).
5. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
6. The effect size for the “total credits earned” outcome was reported by the study authors. The study authors calculated the effect size by dividing the impact at follow-up by the standard deviation of the outcome for all ninth-grade students in the Philadelphia school district’s nonselective, comprehensive high schools from school years 1996/97 through 1998/99. The effect size for the dichotomous variable “enrolled in the tenth grade by the end of the second year” was computed using the Cox Index. For an explanation of the effect size calculations, see [Technical Details of WWC-Conducted Computations](#).
7. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
8. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.
9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of Kemple, Herlihy, & Smith (2005), the study authors made appropriate corrections for clustering, so no additional corrections for clustering were necessary. The WWC corrected statistical significance levels for multiple comparisons.
10. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

## Appendix A4 Summary of shorter-term and longer-term findings for the progressing in school domain<sup>1</sup>

Outcome measure	Study sample	Sample size (schools) <sup>2</sup>	Authors' findings from the study		WWC calculations			
			Talent Development High Schools group <sup>3</sup>	Comparison group <sup>4</sup>	Mean difference <sup>5</sup> (Talent Development High Schools – comparison)	Effect size <sup>6</sup>	Statistical significance <sup>7</sup> (at $\alpha = 0.05$ )	Improvement index <sup>8</sup>
<b>Kemple, Herlihy, &amp; Smith, 2005 (quasi-experimental design)<sup>9</sup></b>								
Total credits earned by end of first year	Cohorts 1, 2, and 3	11	5.2	4.5	0.7	0.25	Statistically significant	+10
Total credits earned by end of third year	Cohort 1	11	13.2	12.3	0.9	0.12	ns	+5
Enrolled in eleventh grade by end of third year	Cohort 1	11	53	47	6	0.16	ns	+6

1. This appendix presents follow-up findings at the end of the first and third years of high school for the measures that fall in the progressing in school domain. The third-year findings were based only on students who began the ninth-grade during the first year of *Talent Development* implementation (cohort 1). The first-year findings were based on all three cohorts. The second-year findings used for effectiveness rating purposes are presented in Appendix A3.
2. Kemple, Herlihy, & Smith (2005) used individual student data, but did not report the number of students in the sample.
3. The WWC calculated the cross-cohort average for the “total credits earned by end of first year” outcome as the simple average of the mean outcomes for each cohort included in the measure.
4. Kemple, Herlihy, & Smith (2005) did not report these adjusted comparison group means and instead reported baseline to follow-up changes for both the intervention and comparison groups. The WWC generated the adjusted comparison group means reported here using the following transformation: adjusted comparison group mean = follow-up comparison group mean + (baseline intervention group mean – baseline comparison group). Stated differently, the adjusted comparison group mean equals the follow-up intervention group mean minus the estimated impact, since, under the comparative interrupted time-series technique used in Kemple, Herlihy, & Smith (2005), impacts are calculated as follows: impact = (follow-up intervention group mean – baseline intervention group mean) – (follow-up comparison group mean – baseline comparison group mean).
5. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
6. The effect size for the “total credits earned” outcome was reported by the study authors. The study authors calculated the effect size by dividing the impact at follow-up by the standard deviation of the outcome for all ninth-grade students in the Philadelphia school district’s nonselective, comprehensive high schools from school years 1996/97 through 1998/99. The effect size for the dichotomous variable “enrolled in the tenth grade by the end of the second year” was computed using the Cox Index. For an explanation of the effect size calculations, see [Technical Details of WWC-Conducted Computations](#).
7. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups.
8. The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.
9. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools. For an explanation, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate the statistical significance. In the case of Kemple, Herlihy, & Smith (2005), the study authors made corrections for clustering and no additional corrections for clustering was necessary.

## **Appendix A5      *Talent Development High Schools* rating for the progressing in school domain**

The WWC rates an intervention's effects in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.<sup>1</sup>

For the outcome domain of progressing in school, the WWC rated *Talent Development High Schools* as having potentially positive effects. It did not meet the criteria for positive effects because there was only one study and that study did not meet WWC evidence standards for a strong design. The remaining ratings (mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered because *Talent Development High Schools* was assigned the highest applicable rating.

### **Rating received**

**Potentially positive effects:** Evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: At least one study showing a statistically significant or substantively important *positive* effect.

Met. One study of *Talent Development High Schools* demonstrated a statistically significant positive effect.

### **AND**

- Criterion 2: No studies showing a statistically significant or substantively important *negative* effect and fewer or the same number of studies showing *indeterminate* effects than showing statistically significant or substantively important *positive* effects.

Met. No studies found statistically significant or substantively important negative effects in this domain.

### **Other ratings considered**

**Positive effects:** Strong evidence of a positive effect with no overriding contrary evidence.

- Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.

Not met. *Talent Development High Schools* had only one study meeting WWC evidence standards.

### **AND**

- Criterion 2: No studies showing statistically significant or substantively important *negative* effects.

Met. No studies found statistically significant or substantively important negative effects in this domain.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain-level effect. The WWC also considers the size of the domain-level effect for ratings of potentially positive or potentially negative effects. See the [WWC Intervention Rating Scheme](#) for a complete description.

## Appendix A6 Extent of evidence by domain

Outcome domain	Number of studies	Schools	Sample size	Extent of evidence <sup>1</sup>
			Students	
Staying in school	0	0	0	na
Progressing in school	1	11	nr	Small
Completing school	0	0	0	na

na = not applicable/not studied

nr = not reported

1. A rating of “moderate to large” requires at least two studies and two schools across studies in one domain, and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the rating is “small.”